Rec'd PCT/PTO 1 9 JUL 2004



REQUEST

	For receiving	e use only
nternational App	lication No.	
International Filin	g Date	

The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty. Applicant's or agent's file reference P51205C WO (if desired) (12 characters maximum) TITLE OF INVENTION Box No. I **MODULATORS** APPLICANT This person is also inventor Box No. II Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.) Telephone No. Facsimile No. Bookham Technology plc 90 Milton Park Teleprinter No. Abingdon Oxon Applicant's registration No. with the Office OX14 4RY State (that is, country) of residence: State (that is, country) of nationality: GB GB the States indicated in the Supplemental Box the United States of America only all designated States except the United States of America all designated States This person is applicant for the purposes of: FURTHER APPLICANT(S) AND/OR (FURTHER) INVENTOR(S) Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.) This person is: applicant only WALKER, Robert Graham applicant and inventor 30 Broadmead Avenue inventor only (If this check-box is marked, do not fill in below.) Northampton Northants. NN3 2QY Applicant's registration No. with the Office G.B. State (that is, country) of residence: State (that is, country) of nationality: GB GB the United States of America only the States indicated in the Supplemental Box all designated States except the United States of America This person is applicant all designated for the purposes of: States Further applicants and/or (further) inventors are indicated on a continuation sheet. AGENT OR COMMON REPRESENTATIVE; OR ADDRESS FOR CORRESPONDENCE common representative The person identified below is hereby/has been appointed to act on behalf agent of the applicant(s) before the competent International Authorities as: Name and address: (Family name followed by given name; for a legal entity, full official designation.

The address must include postal code and name of country.) Telephone No. +44 1865 841060 CLAYTON-HATHWAY, Anthony Nicholas Facsimile No. +44 1293 776837 Fry Heath & Spence LLP The Gables Teleprinter No. Massetts Road Horley, Surrey RH6 7DQ, GB Agent's registration No. with the Office Address for correspondence: Mark this check-box where no agent or common representative is/has been appointed and the space above is used instead to indicate a special address to which correspondence should be sent.



Sheet No. ...2...

_	Ų-

Continuation of Box No. III FURTHER APPLICANT(S) AND/OR (FURTHER) INVENTOR(S)							
If none of the following sub-boxes is used, this sheet should not be included in the request.							
Name and address: (Family name followed by given name; for a legal entity, fu The address must include postal code and name of country. The country of the add Box is the applicant's State (that is, country) of residence if no State of residence is in	Il official designation. dress indicated in this ndicated below.) This person is: applicant only						
CARTER, Andrew Cannon 32A Stoke Road	applicant and inventor inventor only (If this check-box is marked, do not fill in below.)						
Blisworth Northampton NN7 3BZ, G.B.	Applicant's registration No. with the Office						
State (that is, country) of hadionality.	tate (that is, country) of residence:						
This person is applicant for the purposes of: all designated states all designated the United States	the States indicated in the Supplemental Box						
Name and address: (Family name followed by given name; for a legal entity, fu The address must include postal code and name of country. The country of the ad Box is the applicant's State (that is, country) of residence if no State of residence is i	applicant only applicant and inventor inventor only (If this check-box is marked, do not fill in below.) Applicant's registration No. with the Office						
State (that is, country) of nationality:	State (that is, country) of residence:						
This person is applicant all designated States all designated States all designated States	the United States of America only the States indicated in the Supplemental Box						
Name and address: (Family name followed by given name; for a legal entity, fi The address must include postal code and name of country. The country of the ac Box is the applicant's State (that is, country) of residence if no State of residence is	This person is: applicant only applicant and inventor inventor only (If this check-box is marked, do not fill in below.) Applicant's registration No. with the Office						
State (that is, country) of nationality:	State (that is, country) of residence:						
This person is applicant all designated all designated for the purposes of: all designated the United States	the United States the States indicated in the Supplemental Box						
Name and address: (Family name followed by given name; for a legal entity, f The address must include postal code and name of country. The country of the a Box is the applicant's State (that is, country) of residence if no State of residence is							
State (that is, country) of nationality:	State (that is, country) of residence:						
This person is applicant all designated for the purposes of:	tates except the United States the States indicated in the Sof America only the Supplemental Box						
Further applicants and/or (further) inventors are indicated on another continuation sheet.							





Mark the applicable check-boxes below; at least one must be marked.

Box No. V DESIGNATION OF STATES

Т	he fo	ollowing designations are hereby made	un	der F	Rule 4.9(a):			
R	legio	onal Patent						
	A A	P ARIPO Patent: GH Ghana, G SL Sierra Leone, SZ Swaziland, T State which is a Contracting State specify on dotted line)	ZU e of	nited the	d Republic of Tanzania, UG Uganda, Harare Protocol and of the PCT (if o	ZM ther	Zaı kin	nbia, ZW Zimbabwe, and any other dof protection or treatment desired,
X	J EA	Patent Convention and of the PCT	stan	, TM	I Turkmenistan, and any other State v	whic	h is	a Contracting State of the Eurasian
	Î EI	Republic, DE Germany, DK Denr IE Ireland, IT Italy, LU Luxembou any other State which is a Contract	narl rg, l ting	k, EI MC I 3 Sta	m, BG Bulgaria, CH & LI Switzerlan E Estonia, ES Spain, FI Finland, FR Monaco, NL Netherlands, PT Portugal te of the European Patent Convention	Fra l, SF n an	nce, Sw d of	GB United Kingdom, GR Greece, veden, SK Slovakia, TR Turkey, and f the PCT
		TD Chad, TG Togo, and any other of protection or treatment desired,	Sta Spec	ial G ite w ify o	tuinea, GW Guinea-Bissau, ML Mal hich is a member State of OAPI and a in dotted line)	li, M a Co	IR I	Mauritania, NE Niger, SN Senegal, acting State of the PCT (if other kind
		nal Patent (if other kind of protection						
X	AE	United Arab Emirates	X	GM	I Gambia			New Zealand
X	AG	Antigua and Barbuda	X	HR	Croatia	X	OM	1 Oman
X	AL	Albania	X	HU	Hungary	X	PH	Philippines
X	AM	I Armenia	X	.ID	Indonesia			Poland
X	AT	Austria	X	Π	Israel	X	PT	Portugal
X	AU	Australia	X	IN	India	X	RO	Romania
X	AZ	Azerbaijan	X	IS	Iceland		RU	Russian Federation
		Bosnia and Herzegovina						
X	BB	Barbados Bulgaria	X	KE	Kenya	X	SD	Sudan
X	BG	Bulgaria	X	KG	Kyrgyzstan		SE	Sweden
		Brazil						Singapore
K	BY	Belarus			of Korea		SI	Slovenia
-		Belize	X	KR	Republic of Korea		SK 	Slovakia
		Canada			Kazakhstan		SL	Sierra Leone
		& LI Switzerland and Liechtenstein					TJ	Tajikistan
_		China						Turkmenistan
X	CO	Colombia	X	LR	Liberia			Tunisia
		Costa Rica				KO2	TR	Turkey
		Cuba					T.I.	Trinidad and Tobago
		Czech Republic				10A ·		TI to 1 D. Tille of Transmis
		Germany						United Republic of Tanzania
		Denmark	X	MA				Ukraine
		Dominica		MD	Republic of Moldova		UG	Uganda of America
X	DZ	Algeria						United States of America
	EC	Ecuador		MG	Madagascar	7	T 1 77	
	EE	Estonia	M.	MLK	Macedonia		VN	Viet Nem
		Spain						Yugoslavia
		Finland		IVLIN	Mongona Malawi	(S)	74	South A frica
_					Mexico			
	ĊΕ	Grenada Georgia		M'7	Mozambique	X	7.W	Zimbabwe
	CE.	Ghana	(X)	NO	Norway	220	∀ ₹	2
Ch	eck-t	ooxes below reserved for designating	Stat	es w	hich have become party to the PCT a	fter	issu	ance of this sheet:
X	. Se	ychelles				\square		
			П			☐.		

Precautionary Designation Statement: In addition to the designations made above, the applicant also makes under Rule 4.9(b) all other designations which would be permitted under the PCT except any designation(s) indicated in the Supplemental Box as being excluded from the scope of this statement. The applicant declares that those additional designations are subject to confirmation and that any designation which is not confirmed before the expiration of 15 months from the priority date is to be regarded as withdrawn by the applicant at the expiration of that time limit. (Confirmation (including fees) must reach the receiving Office within the 15-month time limit.)



Supplemental Box

If the Supplemental Box is not used, this sheet should not be included in the request.

- If, in any of the Boxes, except Boxes Nos. VIII(i) to (v) for which a special continuation box is provided, the space is insufficient to furnish all the information: in such case, write "Continuation of Box No..." (indicate the number of the Box) and furnish the information in the same manner as required according to the captions of the Box in which the space was insufficient, in particular:
- (i) if more than two persons are to be indicated as applicants and/or inventors and no "continuation sheet" is available: in such case, write "Continuation of Box No. III" and indicate for each additional person the same type of information as required in Box No. III. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below;
- (ii) if, in Box No. II or in any of the sub-boxes of Box No. III, the indication "the States indicated in the Supplemental Box" is checked: in such case, write "Continuation of Box No. III" or "Continuation of Boxes No. III" and No. III" (as the case may be), indicate the name of the applicant(s) involved and, next to (each) such name, the State(s) (and/or, where applicable, ARIPO, Eurasian, European or OAPI patent) for the purposes of which the named person is applicant;
- (iii) if, in Box No. II or in any of the sub-boxes of Box No. III, the inventor or the inventor/applicant is not inventor for the purposes of all designated States or for the purposes of the United States of America: in such case, write "Continuation of Box No. II" or "Continuation of Box No. II" or "Continuation of Boxes No. II and No. III" (as the case may be), indicate the name of the inventor(s) and, next to (each) such name, the State(s) (and/or, where applicable, ARIPO, Eurasian, European or OAPI patent) for the purposes of which the named person is inventor;
- (iv) if, in addition to the agent(s) indicated in Box No. IV, there are further agents: in such case, write "Continuation of Box No. IV" and indicate for each further agent the same type of information as required in Box No. IV;
- (v) if, in Box No. V, the name of any State (or OAPI) is accompanied by the indication "patent of addition," or "certificate of addition," or if, in Box No. V, the name of the United States of America is accompanied by an indication "continuation" or "continuation-in-part": in such case, write "Continuation of Box No. V" and the name of each State involved (or OAPI), and after the name of each such State (or OAPI), the number of the parent title or parent application and the date of grant of the parent title or filing of the parent application;
- (vi) if, in Box No. VI, there are more than five earlier applications whose priority is claimed: in such case, write "Continuation of Box No. VI" and indicate for each additional earlier application the same type of information as required in Box No. VI.
- If, with regard to the precautionary designation statement contained in Box No. V, the applicant wishes to exclude any State(s) from the scope of that statement: in such case, write "Designation(s) excluded from precautionary designation statement" and indicate the name or two-letter code of each State so excluded.

CONTINUATION OF BOX IV:

Additional Representatives:

FRY, Alan Valentine,

DOWNING, Michael Philip

UNWIN, Stephen Geoffrey,

TOWNSEND, Victoria Jayne,

LOCK, Graham James,

BODEN, Keith McMurray

all of

Fry Heath & Spence LLP The Gables Massetts Road Horley, Surrey RH6 7DQ, GB

*	1 .
V	
1	
_	

	' '	neet No Y		
Box No. VI PRIORITY	CLAIM			
The priority of the following	earlier application(s) is here	by claimed:		
Filing date	Number	v	Where earlier application	is:
of earlier application (day/month/year)	of earlier application	national application: country or Member of WTO	regional application:* regional Office	international application: receiving Office
item (1) 19 January 2002 (19/01/02)	0201203.7	G.B.		
item (2)				
item (3)				
item (4)		,		
item (5)				
Further priority claims a	are indicated in the Suppleme	ental Box.		
Box No. VII INTERNAT Choice of International Sea international search, indicate ISA / Request to use results of ea International Searching Author Date (day/month/year)	item (2) item (2) item (2) item (2) item (2) item (2) item (3) item (4) item (5) item is an ARIPO application, itember of the World Trade Or itember of the World Trade Or item item (5) item item item item item item item item	item (3) item item (3) item indicate at least one country rganization for which that e THORITY two or more International So-letter code may be used): that search (if an earlier so	(4) item (5) y party to the Paris Converger application was fixed.	other, see Supplemental Box ention for the Protection of led (Rule 4.10(b)(ii)): competent to carry out the
Box No. VIII DECLARAT	TIONS			
The following declarations check-boxes below and indica	are contained in Boxes Nos. the in the right column the num	VIII (i) to (v) (mark the a nber of each type of declar	applicable ation):	Number of declarations
Box No. VIII (i)	Declaration as to the identit			: ·
Box No. VIII (ii)	Declaration as to the appli date, to apply for and be g	ranted a patent		:
Box No. VIII (iii)	Declaration as to the applicate, to claim the priority	of the earlier application		:
Box No. VIII (iv)	Declaration of inventorshi United States of America)		f the designation of the	: 1
Box No. VIII (v)	Declaration as to non-preju	udicial disclosures or exce	eptions to lack of novelty	' :

Box No. VIII (v)





DECLARATION: INVENTORSHIP (only for the purposes of the designation of the United States of America) Box No. VIII (iv)

The declaration must conform to the following standardized wording provided for in Section 214; see Notes to Boxes Nos. VIII, VIII (i) to (v) (in general) and the specific Notes to Box No. VIII (iv). If this Box is not used, this sheet should not be included in the request.

for the purposes of the designation of	
I hereby declare that I believe I am the original, first and sole (if only is listed below) inventor of the subject matter which is claimed and	one inventor is listed below) or joint (if more than one inventor for which a patent is sought.
This declaration is directed to the international application of which	
This declaration is directed to international application No. PCT/ to Rule $26ter$).	(if furnishing declaration pursuant
I hereby declare that my residence, mailing address, and citizenship	are as stated next to my name.
I hereby state that I have reviewed and understand the contents of the of said application. I have identified in the request of said application, and I have identified below, under the heading "Prior Applications," Organization, day, month and year of filing, any application for a pater States of America, including any PCT international application design having a filing date before that of the application on which foreign I	in compliance with PCT Rule 4.10, any claim to foreign priority, by application number, country or Member of the World Trade nt or inventor's certificate filed in a country other than the United ating at least one country other than the United States of America,
Prior Applications: GB 0201203.7 - 19. January. 200	
I hereby acknowledge the duty to disclose information that is 137 C.F.R. § 1.56, including for continuation-in-part applications, mate of the prior application and the PCT international filing date of the	erial information which became available between the filing date
I hereby declare that all statements made herein of my own knowledg are believed to be true; and further that these statements were made made are punishable by fine or imprisonment, or both, under Section false statements may jeopardize the validity of the application or any	with the knowledge that willful false statements and the like so 1001 of Title 18 of the United States Code and that such willful
Name: WALKER, Robert Graham	
Residence:	
Mailing Address: 30 Broadmead Avenue, Northampton, NN	I3 2QY
m. satus.	Date:
Name:	
Northampton G.B.	
Mailing Address: 32A Stoke Road, Blisworth, Northampton	, NN7 3BZ
British	
Citizenship: British Inventor's Signature: A Cacaca (if not contained in the request, or if declaration is corrected or added under Rule 26ter after the filing of the international application. The signature must be that of the inventor, not that of the agent)	Date: i 3 / 0 i / 0 3 (of signature which is not contained in the request, or of the declaration that is corrected or added under Rule 26ter after the filing of the international application)
This declaration is continued on the following sheet, "Continuati	on of Box No. VIII (1V)".

Sheet No	

***	Sheet No			
Box No. IX CHECK LIST; LANGUAGE	OF FILING			
This international application contains: (a) the following number of sheets in paper form:	This international application is accompanied by the following item(s) (mark the applicable check-boxes below and indicate in right column the number of each item):	Number of items		
request (including declaration sheets) : 7	 fee calculation sheet original separate power of attorney 	: '		
description (excluding sequence listing part) : 21	3. original general power of attorney	:		
claims : 4 abstract : 1	if any:	: 3		
drawings : 13	5. statement explaining lack of signature 6. priority document(s) identified in Box No. VI as	•		
sequence listing part of	item(s):	:		
description (actual number of sheets if filed in paper	(language):	:		
form, whether or not also filed in computer readable form; see (b) below)	8. separate indications concerning deposited microorganism or other biological material	:		
Total number of sheets : 46	9. sequence listing in computer readable form (indicate also type and number of carriers (diskette, CD-ROM, CD-R or other))			
 (b) sequence listing part of description filed in computer readable form (i) □ only (under Section 801(a)(i)) 	 (i) copy submitted for the purposes of international searc under Rule 13ter only (and not as part of the international application) 	:		
(ii) in addition to being filed in paper form (under Section 801(a)(ii))	 (ii) (only where check-box (b)(i) or (b)(ii) is marked in lef column) additional copies including, where applicable the copy for the purposes of international search under Rule 13ter 	; ,		
Type and number of carriers (diskette, CD-ROM, CD-R or other) on which the sequence listing part is contained (additional copies to be indicated under item 9(ii), in right column):	(iii) together with relevant statement as to the identity of the copy or copies with the sequence listing part mentioned in left column	:		
	10. other (specify):	:		
Figure of the drawings which should accompany the abstract: Figure 7	Language of filing of the international application: English			
	Γ, AGENT OR COMMON REPRESENTATIVE ning and the capacity in which the person signs (if such capacity is not obvious from rea	ding the request).		
an/66_				
CLAYTON-HATHWAY, Anthony Nichol	as			
	For receiving Office use only			
Date of actual receipt of the purported international application:	2. E	rawings:		
 Corrected date of actual receipt due to later b timely received papers or drawings completing the purported international application: 	ut			
4. Date of timely receipt of the required corrections under PCT Article 11(2):		not received:		
5. International Searching Authority (if two or more are competent): ISA /	6. Transmittal of search copy delayed until search fee is paid			
	For International Bureau use only			
Date of receipt of the record copy by the International Bureau:				